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PTO/SB/08A (08-00)

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number		
				Filing Date		Herewith
				First Named Inventor		TAKAYAMA
				Group Art Unit		1742
				Examiner Name		Yee
Sheet	1	of	2	Attorney Docket Number		04005/LH

U.S. PATENT DOCUMENTS

Exam. Inits ¹	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion

FOREIGN PATENT DOCUMENTS

Exam. Inits ¹	Cite No ¹	offc ¹	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
	X	JP	61-009555	A	TAKAYAMA ET AL	01-17-1986		X*
	X	JP	64-004459	A	ITABE ET AL	01-09-1989		X*
	X	JP	10-176219	A	TAKAYAMA ET AL	06-30-1998		X*
	X	JP	11-117059	A	TAKAYAMA ET AL	04-27-1999		X*
	X	JP	11-222627	A	TAKAYAMA ET AL	08-17-1999		X*
	X	JP	2000-204464	A	HAMASAKA ET AL	07-25-2000		X*
	X	JP	2003-027181	A	TAKAYAMA ET AL	01-29-2003		X*
	X	JP	2003-328078	A	TAKAYAMA	11-19-2002		X*
			*English abstract attached.					

Examiner Signature	Deborah Yee	Date Considered	12-4-05
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¹ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

⁴ Unique citation designation number. ⁵ See kinds of U.S. Patent Documents. ⁶ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁷ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁸ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁹ Place a check here if English translation is attached.

DATE MAILED: March 1, 2004

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				Group Art Unit		1740
				Examiner Name		Yell
Sheet	2	of	2	Attorney Docket Number		03773/LH
OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published				T ²
		K. KOMINE et al; ON RELATIONSHIP BETWEEN HALF-VALUE BREADTH AND HARDNESS OF QUENCHED-TEMPERED STEELS ; Materials Vol. 26, No.280, P26 issued by Society of Materials, Japan, pp. 24-30. Date 7				
Examiner Signature	Deborah Yell			Date Considered	12-04-05	

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Substitute for Form 1449A/PTO

Application Number

10/790,959

Filed

March 1, 2004

First Named Inventor

Takemori TAKAYAMA

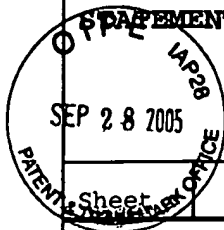
Group Art Unit

1742

Examiner Name

Deborah YEE

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**



Sheet

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of

2

Attorney Docket Number

03773/HG

U.S. PATENT DOCUMENTS

Exam. Initials ¹	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
DY ↓		2004/0256029	A1	TAKAYAMA et al.	12-23-2004	
		6,413,328	B2	TAKAYAMA et al.	07-02-2002	
		6,258,179	B1	TAKAYAMA et al.	07-10-2001	
		5,725,690	A	OCHI et al.	03-10-1998	
		4,992,111		YAMADA et al.	02-12-1991	

FOREIGN PATENT DOCUMENTS

Exam Initials ¹	Cite No ¹	offc ¹	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
DY ↓		JP	8-3629	A	MURAI	01-09-1996		*
		JP	62-218542	A	NAKAJIMA et al.	09-25-1987		*
		JP	2002-180183	A	ASANO et al.	06-26-2002		*
		JP	9-111405	A	EGUCHI et al.	04-28-1997		*
		JP	2-175836	A	TODA	07-09-1990		*

Examiner Signature

Deborah Yee

Date Considered

12-4-05

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*ENGLISH-LANGUAGE ABSTRACT ENCLOSED

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				Filing Date	March 1, 2004
				First Named Inventor	Takemori TAKAYAMA
				Group Art Unit	1742
				Examiner Name	Deborah YEE
Sheet	2	of	2	Attorney Docket Number	03773/HG
OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published			T ²
dy		BRICK et al., "Structure and Properties of Engineering Materials," Martensite Transformation in Iron-Carbon Alloys, 4th Edition, (1978), pp. 152-154.			
Examiner Signature	Deborah Yee			Date Considered	12-4-05

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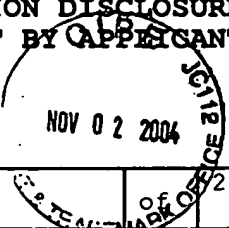
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		Filing Date	March 1, 2004
		First Named Inventor	T. TAKAYAMA
		Group Art Unit	1740
		Examiner Name	Not Yet Assigned <i>lee</i>
Sheet 1	of 2	Attorney Docket Number	03773/LH

U.S. PATENT DOCUMENTS

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<i>OT</i>	A	2004/0035499	A1	TAKAYAMA et al.	02-26-2004	

FOREIGN PATENT DOCUMENTS

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<i>OT</i>	B	JP	03-061348	A	KOMATSU LTD.	03-18-1991		X*
	C	JP	08-073929	A	KOMATSU LTD.	03-19-1996		X*
	D	JP	08-104924	A	KOMATSU LTD.	04-23-1996		X*
	E	JP	2004-076125	A	KOMATSU LTD.	03-11-2004		X*
			*English Language Abstract only					

Examiner Signature	<i>Deborah Lee</i>	Date Considered	<i>12-4-05</i>
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				Group Art Unit	1742
				Examiner Name	Not yet assigned Yee
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DT	F	Related U.S. Patent Application Serial No. 10/790,931, filed March 1, 2004; Inventor: T. TAKAYAMA et al.; Title: ROLLING ELEMENT AND METHOD OF PRODUCING THE SAME.			
	G	"HEAT TREATMENT OF STEEL" (5 TH Edition) Edited by: The Iron and Steel Institute of Japan, Publ. Office: Maruzen Co., Ltd., March 15, 1985			
Examiner Signature	Deborah Yee			Date Considered	12-04-05

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